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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,881	07/07/2005	Wolfgang Stidl	DE03 0015 US	6245
65913	7590	09/08/2009	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			PEARSON, DAVID J	
			ART UNIT	PAPER NUMBER
			2437	
			NOTIFICATION DATE	DELIVERY MODE
			09/08/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,881	<b>Applicant(s)</b> STIDL ET AL.	
	<b>Examiner</b> DAVID J. PEARSON	<b>Art Unit</b> 2437	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. Claims 1-2, 4-5, 7 and 9-10 have been amended. Claims 11-12 are newly added. Claims 1-12 have been examined.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 5 and 11-12 have been considered but are moot in view of the new ground(s) of rejection.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 112***

4. Claims 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 provides for the use of “at least one circuit arrangement as claimed in claim 1”, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 11 provides for the use of “at least one circuit arrangement as claimed in claim 5”, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

***Claim Rejections - 35 USC § 101***

5. Claims 10-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 10 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim 11 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 103***

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Force et al. (U.S. Patent 5,533,123; hereafter referred to as “Force”), and further in view of Sutherland (U.S. Patent 6,292,898).

For claim 12, Force teaches a microelectric circuit arrangement intended for protecting at least one electronic component against illicit manipulation and/or unauthorized access, having

At least one activating unit for checking that at least one activating condition is met (note column 23, lines 19-21) and for activating at least one preventing unit that is also associated with the circuit arrangement and that is connected to the activating unit (note column 23, lines 21-27), by means of which preventing unit the component can be at least partly de-activated and/or at least partly destroyed in the event of illicit manipulation and/or unauthorized access (note column 25, lines 14-34).

Force differs from the claimed invention in that they fail to teach:

Characterized in that the preventing unit is arranged (j=4) to prevent the build-up of a high voltage.

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Sutherland teaches:

Characterized in that the preventing unit is arranged (j=4) to prevent the build-up of a high voltage (note column 9, lines 41-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the checking unit of Force and the clamp to ground of Sutherland. One of ordinary skill in the art would have been motivated to combine Force and Sutherland because this active erasure of memory is much faster than passive erasure (note column 4, lines 14-26 of Sutherland).

7. Claims 1-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Force and Sutherland as applied to claim 12 above, and further in view of Curiger et al. (U.S. Patent 6,330,668; hereafter "Curiger") and Kuo et al. (U.S. Patent 6,289,456; hereafter "Kuo").

For claim 1, the combination of Force and Sutherland teaches a microelectric circuit arrangement intended for protecting at least one electronic component against illicit manipulation and/or unauthorized access, having

At least one activating unit for checking that at least one activating condition is met (note column 23, lines 19-21 of Force) and for activating at least one preventing unit that is also associated with the circuit arrangement and that is connected to the

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activating unit (note column 23, lines 21-27 of Force), by means of which preventing unit the component can be at least partly de-activated and/or at least partly destroyed in the event of illicit manipulation and/or unauthorized access (note column 25, lines 14-34 of Force);

**Characterized in that the preventing unit is arranged**

**(j=4) to prevent the build-up of a high voltage** (note column 9, lines 41-49 of Sutherland) **and**

**(j=7) to switch on an increased current drain in the operating state of the quiescent state** (note column 10, lines 4-9 of Sutherland).

The combination of Force and Sutherland differs from the claimed invention in that they fail to teach:

**(j=1) to prevent an internal oscillator from beginning to oscillate.**

Curiger teaches:

**(j=1) to prevent an internal oscillator from beginning to oscillate** (note column 8, lines 8-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the combination of Force and Sutherland and the stopped oscillator of Curiger. One of ordinary skill in the art would have been motivated to combine Force, Sutherland and Curiger because it would prevent a circuit from

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providing or performing an incorrect calculation result under certain conditions, which can be used by attackers (note column 1, lines 43-67 of Curiger).

The combination of Force, Sutherland and Curiger differs from the claimed invention in that they fail to teach:

**(j=2) to prevent an oscillator for an external clock signal from beginning to oscillate.**

Kuo teaches:

**(j=2) to prevent an oscillator for an external clock signal from beginning to oscillate** (note Abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the combination of Force, Sutherland and Kuo and the external clock oscillator of Kuo. One of ordinary skill in the art would have been motivated to combine Force, Sutherland, Curiger and Kuo because it would record the date and time of the attack (note Abstract of Kuo).

For claim 5, the combination of Force, Sutherland, Curiger and Kuo teaches a method of protecting at least one electronic component against illicit manipulation and/or unauthorized access, characterized by the following method steps:



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Checking that at least one activating condition is met by means of at least one activating unit (note column 23, lines 19-21 of Force),

In the event of illicit manipulation of the component and/or unauthorized access to the component activating at least one preventing unit that is connected to the activating unit (note column 23, lines 21-27 of Force) and

At least partly de-activating the operation of the component and/or at least partly destroying the component, by means of the preventing unit (note column 25, lines 14-34 of Force);

**Characterized in that the at least partial de-activation of the operation of the component and/or the at least partial destruction of the component is carried out by**

**(j=1) preventing an internal oscillator from beginning to oscillate** (note column 8, lines 8-10 of Curiger).

**(j=2) preventing an oscillator for an external clock signal from beginning to oscillate** (note Abstract of Kuo).

**(j=4) preventing the build-up of a high voltage** (note column 9, lines 41-49 of Sutherland) **and**

**(j=7) switching on an increased current drain in the operating state of the quiescent state** (note column 10, lines 4-9 of Sutherland).

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For claim 10, the combination of Force, Sutherland, Curiger and Kuo teaches the use of at least one circuit arrangement as claimed in claim 1 for the self-destruction of at least one integrated circuit in the event of unauthorized use in the field or of an illicit attempt to analyze the integrated circuit by at least partial reverse preparation (note column 23, lines 19-72 and column 25, lines 14-34 of Force).

For claim 11, the combination of Force, Sutherland, Curiger and Kuo teaches the use of at least one circuit arrangement as claimed in claim 5 for the self-destruction of at least one integrated circuit in the event of unauthorized use in the field or of an illicit attempt to analyze the integrated circuit by at least partial reverse preparation (note column 23, lines 19-72 and column 25, lines 14-34 of Force).

For claim 2, the combination of Force, Sutherland, Curiger and Kuo teaches claim 1, characterized in that the preventing unit is constructed

In analog circuit technology or

In at least directly digital circuit technology, in the form of at least one fuse and/or at least one antifuse (note column 26, lines 16-20 of Force).

For claims 3 and 8, the combination of Force, Sutherland, Curiger and Kuo teaches claims 1 and 5, characterized in that the activating unit is arranged

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To recognize once or more than once at least one illicit command (note column 22, lines 15-18 of Force),

To recognize a multiplicity of difference illicit operations (note column 23, lines 46-52 of Force)

To issue at least one specific activating command (note column 25, lines 14-21 of Force)

To issue at least one activating command together with data that addresses a plurality of components by means of at least one group coding, or an individually coded component (note column 26, lines 45-67 of Force), and/or

To recognize once or more than once at least one physical attack on the component, by means of sensor circuitry belonging to the component that is intended for this purpose (note column 15, lines 42 and 64; column 16, line 13; column 17, line 36; column 18, line 51; column 19, line 55; column 21, line 28 of Force).

For claims 4 and 9, the combination of Force, Sutherland, Curiger and Kuo teaches claims 1 and 5, characterized in that the preventing unit is arranged

(j=3) to switch off a high-voltage limiter, in particular by means of permanent programming,

(j=5) to reprogram the allocation of addresses and/or the allocation of data,  
**and/or**

(j=6) to load the memory element of the component with illicit values of data (note column 26, lines 16-21 of Force).

For claim 6, the combination of Force, Sutherland, Curiger and Kuo teaches claim 5, characterized in the check on whether the activating condition is met is made

By analyzing at least one data stream applied from outside (note column 22, lines 15-18) or

By signals from the internal sensor circuitry of the component (note column 15, lines 42 and 64; column 16, line 13; column 17, line 36; column 18, line 51; column 19, line 55; column 21, line 28).

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Force, Sutherland, Curiger and Kuo as applied to claim 5 above, and further in view of Beuten et al. (U.S. Patent Application Publication 2003/0018902; hereafter referred to as "Beuten").

For claim 7, the combination of Force, Sutherland, Curiger and Kuo differs from the claimed invention in that they fail to teach:

If the activation condition is met, recognition of this fact and the desired effects it is to have are placed in store in coded form in at least one memory element that is used for starting-up the component, and

The start-up, which initiates the appropriate actions, is repeated.

Beuten teaches:

If the activation condition is met, recognition of this fact and the desired effects it is to have are placed in store in coded form in at least one memory element that is used for starting-up the component (note paragraph [0014]), and

The start-up, which initiates the appropriate actions, is repeated (note paragraph [0014]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the combination of Force, Sutherland, Curiger and Kuo and the stored manipulation detection of Beuten. It would have been obvious to one ordinary skill in the art at the time of the invention to combine Force, Sutherland, Curiger, Kuo and Beuten because it would permit an orderly power down of the system without any loss of data.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID J. PEARSON whose telephone number is (571)272-0711. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm; off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. J. P./  
Examiner, Art Unit 2437

/Emmanuel L. Moise/  
Supervisory Patent Examiner, Art Unit 2437